Support to e-Governance initiatives based on FOSS Project

Training Services on FOSS

Terms of Reference

1. Background

The "Support to e-Governance initiatives based on Free/Open Source Software at the local level in Macedonia" Project aims to support and facilitate the ICT usage in local government processes and services by introduction of Free/Open Source Software (FOSS) as a cost-effective, comprehensive complementary tool to assist in building of transparent e-governance at municipal levels that will improve efficiency and effectiveness of service delivery to its citizens.

The primary objective of the project is to enhance the understanding and demonstrate how and in which conditions FOSS can be beneficial to local governance processes and local economies. The intention is to build up on the existing ICT infrastructure and capacities in the Macedonian municipalities in order to increase the penetration of successful open e-governance tools in local governance practices. This will create possibilities to strengthen peoples' participation in local affairs on one hand and to generate savings in the local budget on the other. The Project will be fully supported in 3 pilot Macedonian municipalities, while training on FOSS will be carried out in 10 Macedonian municipalities, and will target IT support personal and IT Foundations established in them.

Most of the trainees have a pretty good skills and knowledge in usage and administration of MS Windows operating systems and MS Office applications. Unfortunately they do not have knowledge and experience in FOSS .and the open standards or this knowledge is wary limited.

2. Training Objectives

At the end of the FOSS training, it is expected that participants will obtain the following knowledge and skills:

- Ability to further promote usage and benefits from free software solutions (participants of this training to be able to act as a missioners on a local level in regard to issues concerning IT development of the Local governments (LGs));

- To become acquainted with all aspects that usage of FOSS might have on LGs everyday works and business processes;

- To provide hands on experience to the user so as to make them aware of all the different features and flavours of a GNU/Linux OS.;

- To attain knowledge in administering FOSS applications and operating system, security of the system and system administration tasks.

3. Duties/Tasks

The trainer will be responsible for achieving the above-mentioned objectives through carrying out the following duties of the assignment:

- Develop training agenda in close cooperation with the project manager,

- Develop and produce the training materials and handouts to serve the participants after the training for similar purposes;

- Conduct the training (3 trainings) with 20 participants (each) in accordance with the curriculum given in Annex1 of this document;

- Assess the further training needs of participants throughout the training delivery,

- Draft training activity report including recommendations for other training needs in the areas of FOSS.

4. Methodology

The contractor will accept only offers that integrate basic theory and information sharing together with hands-on experience and practice throughout the training days.

The training should provide the trainees with theoretical information and practical tools, and should increase their skills to integrate the same in their future work.

5. Duration of the training

The total duration of the trainings should be 10 working days. The training should start on 01 October, and be completed by 30 November 2006. The exact days of trainings will be fixed in accordance with the trainer's availability in the above-mentioned period.

If the trainers estimation of days needed for fulfilling the assignment is higher then the one proposed by the contractor, this should be indicated it in the technical and financial proposal addressing this Terms of References. The contractor retains the right to decide upon the proposed number of days.

6. Logistical and Other Provisions

The training will take place in Skopje, and will be organized by the consultant.
In the financial proposal please indicate separately the consultant's fee for fulfilling the assignment and other expenses (including costs for training premises, travel costs, accommodation, per diem, etc).

7. Consultant Qualifications:

Independent IT training consultants with strong background in FOSS and IT Training Centres are equally eligible to conduct this training.

The successful contracted company/consultant is expected to possess the following qualifications:

- University degree in computer science or related;

- Minimum 3 years of experience in IT Training, including FOSS related topics;

- Extensive expertise and knowledge on FOSS;

- International experience will be considered as an asset;

- Excellent knowledge of written and spoken English.

8. Language

Trainings will be in English or Macedonian

The training materials have to be produced in English.

Linux Awareness Program

Overview

This is a very basic GNU/Linux course. The aim is to provide some hands on experience to the user so as to make them aware of all the different features and flavours of a GNU/Linux OS. At the end of the course, a user should be able to connect to and browse the Internet, send receive e-mails, create rich text documents, spreadsheets, presentations, administer personal system etc. all using a GNU/Linux system and various free software available on the Net.

Sr.No	Contents	No. of Lectures	Maximum Marks
1	**Introduction and Installation** 1. Know your PC 2. Unix and Linux History 3. Licensing, FSF/GNU and Open source 4. Different Linux distributions 5. Linux Installation	--	--

2	**Unix Architecture**
	
	1. Kernel, Shell and Applications
	   o Role of Kernel
	   o Role of Shell, Different types of shells
	2. File System / Directory Structure
	3. Multitasking and Multi-user system
	4. Operating Modes (RC scripts, Init levels)
	5. Important concepts in a Linux environment
	   o Login
	   o login scripts and Profiles
	   o X window system, the GUI under Linux
	   o Different window manager
	   o File concepts
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3	**File manipulation under Linux** 1. copy, rename, delete and move 2. directory listing	--	--

	3. file handling and IO redirection (to be covered after completion of section 4)			
4	**Users and Groups** 1. Concept of users and groups 2. Owner creator 3. Primary and secondary group 4. Types of file and directory permissions	--	--
5	**Basic commands and shell-scripting** 1. Miscellaneous other commands cat, cal, date, passwd, less, grep, wc, bc uname, etc. Archiving utilities, tar, gzip/gunzip, bzip/bunzip etc. 2. Introduction to shell scripts. Writing basic shell scripts	--	--
6	**Basic System Administration** 1. Managing Users and Groups using command like adduser, userdel, groupadd, groupdel etc. 2. Basic Network Setup Setting hostname, IP address of the machine. Setting a dialup connection. 3. Installing and removing packages. Using the RPM, source package installation, URPMI. 4. Managing Partitions understanding the /etc/fstab 5. Boot loader management understanding the lilo and grub boot loader and its configuration files 6. X-server configuration understanding the XF86config (overview), configure X using the xf86config command.	--	--
7	**Other GUI Applications** 1. KDE 2. Editors (Kwrite, Kedit) 3. Office Applications (word processors, spreadsheets)	--	--

	4. Internet related applications (browsers, mail clients) 5. Multimedia applications		

Linux Professional (Level 1)

Overview

This course is aimed to provide detailed know how of the GNU/Linux system to the user at level where the person after the successful completion of the course will have a understanding of the OS, will be able to manage/install/upgrade packages. Basic system tweaking, modifying run levels, modify services status, security setup etc.

Sr.No	Contents	No. of Lectures	Maximum Marks
1	**Pre Requisites** 1. Introduction and Installation 2. Unix Architecture 3. File manipulation under Linux 4. Users and Groups 5. Basic commands and using GUI 6. Working with Office Applications 7. Using and configuring Internet related Applications 8. Working with VI	--	--

2	**Command Line Interface**
	
	1. Additional text manipulation commands.
	e.g. cut, grep, split, paste, basename and various other gnu utils etc.
	2. Working with bash
	    ○ login scripts and profiles
	    ○ Shell scripting
	3. Introduction to regular expressions
	4. Process management
	5. Installation
	    ○ Partitioning and disk management
	    ○ Package management
	    ○ GUI configuration and customizing X
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3	**Networking related** 1. Introduction to IP addressing 2. NIC setup and configuration	--	--

	3. Internetworking with windows (samba) 4. Using ftp, wget, telnet, SSH clients 5. Remote X 6. Configuring dialup connection using CLI		
4	**Configuring Services** 1. RC levels 2. chkconfig 3. Important Configuration related files	--	--
5	**Development Tools** 1. Compiling packages from sources 2. Compiling source rpm packages 3. Kernel configuration & compilation	--	--
6	**Other Important Security Related Concepts** 1. Pluggable authentication modules 2. Using GnuPG	--	--
7	**Miscellaneous things** 1. Backup 2. Understanding and locating logs.	--	--

Linux Professional (Level 2)

Overview

This course is aimed to provide detailed know how of the GNU/Linux system to the user at level where the person after the successful completion of the course will have a understanding of the OS, installing and managing software packages, implementing network based facilities like - mail server, web server etc. Securing the system and System administration tasks.

Detailed Syllabus

Sr.No	Contents	No. of Lectures	Maximum Marks
1	**Pre Requisites** 1. Introduction and Installation 2. Unix Architecture 3. File Hierarchy System (FHS) 4. Users and Groups 5. Working with VI, CLI, Shell Scripting, Process management 6. TCP/IP Services 7. Introduction to xinetd and tcp-wrapppers	--	--
2	**Server Class Installation and Configuration** 1. RPM management 2. Introduction to customizing RPMs 3. Managing and understanding dependencies	--	--

3	**Understanding and Configuring different services**
	
	1. FTP service using ProFTPd
	2. File and Print service using Samba
	3. Proxy service using Squid
	4. HTTP Service using Apache
	5. Domain Name Service
	    o Authoritative Name Service
	    o Recursive Name Service
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	6. Mailing services using MTA
	    o POP3
	    o SMTP
	7. Introduction Firewalls
	    o Stateless Firewalls
	    o Stateful Firewalls			

4	**Configuring and Using Secure Services** 1. Understanding OpenSSL 2. Secure shell and copy using OpenSSH 3. Configuring a service for use with PAM	**--**		**--**
5	**Basic System Administration Tasks** 1. Backup 2. Understanding, locating, Monitoring logs	**--**		**--**